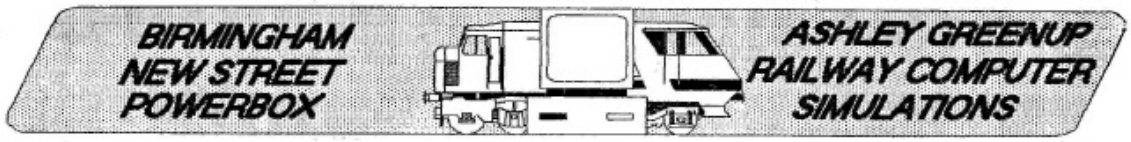


Birmingham New Street, often described as the hub of British Rail's InterCity system, lies at the intersection of six major trunk routes (see Figure 1). Add an extensive suburban network, including a dedicated cross city service, and you have a situation where rail traffic control really must be got right. Set on a Summer Saturday in the mid 1980's the simulation allows you to control traffic for a four hour shift which we think you will find challenging as you keep traffic flowing smoothly with the minimum of delay to booked timings.

The layout of New Street station and Proof House Jct. immediately to it's east, is shown in figure 2. Five main input and output routes are represented on the plan as WV, GL, AS, CV and DY (standing for Wolverhampton, Gloucester, Aston, Coventry and Derby respectively). It is these abbreviations along with the platform number codes which are used to set up movements within the simulation. Most platforms are signalled for bi-directional and multi-train working, but in order to represent the basic service patterns then operating, we have put restrictions on the use of certain platforms as detailed in Table 1 below. A list of final destination codes and originating points is given in Table 2.

TABLE 1: RESTRICTIONS TO PLATFORM USE

PLATFORMS DEDICATED TO TERMINATING LOCAL SERVICES

PLATFORM	TO/FROM
P1A	Walsall
P1B	Hereford, Malvern, Worcester
P3A	Coventry
P3B	Kidderminster, Stourbridge
P4A	Euston (EMUs)
P4B	Wolverhampton, Stafford (+Preston EMU)

PLATFORMS DEDICATED TO CROSS-CITY SERVICES

P5	Eastbound
(to Four Oaks, Blake St & Litchfield)	
P12	Westbound
(to Longbridge, Redditch & Bromsgrove)	

OTHER RESTRICTIONS

P2 can only be used by trains from WV line to the CV line *
P6 can only be used by trains from CV line to the WV line *

* Note that these trains may use other platforms

Terminating trains from East Anglia must use P8 ^
Terminating trains from East Mids and Lines must use P9 ^

^ Other trains may use these platforms

LOADING THE PROGRAM

SPECTRUM The program is loaded by typing LOAD""

GETTING STARTED

Having loaded take a note of traffic conditions and then press any key as instructed, now wait for the screen to fill with trains due to arrive and depart. Press the SPACE BAR on input prompt (after ACCEPT) the clock should read 10:00hrs. Check carefully to see if any train is due to arr. or is ready to depart. Depending on lateness any of the trains due displayed on the screen may be moved as the due at times changes to "app". When this happens type in the route input e.g. WV for the 1Y71 Liv-Pgn, press ENTER/RETURN and in answer to EXIT key in a platform code e.g. P7 then ENTER/RETURN. If nothing else can be moved let the clock tick on. At 10:02 1V68 Brm-Cdf becomes ready to depart. in answer to input (after ACCEPT) key in P9 then ENTER/RETURN, in answer to EXIT type in GL, the train will now move out. As arrivals become available, this is when thew due at time changes to "app" you should be able to move 2G57 Wal-Brm from AS to P1A and the 1012 Baf-Wey (DY) to P11 and 2G45 (CV) to P3A. etc. using the methods described.

TABLE 2: ORIGINATING AND DESTINATION CODES

	WV
Abw	Aberystwyth
Blk	Blackpool
Car	Carlisle
Gla	Glasgow
Her	Hereford
Hol	Holyhead
Inv	Inverness
Kid	Kidderminster
Liv	Liverpool
Lld	Llandudno
Mal	Malvern
Man	Manchester
Prs	Preston
Shw	Shrewsbury
Stb	Stourbridge
Stf	Stafford
Wlv	Wolverhampton
Wor	Worcester

	CV
Bgn	Brighton
Cob	Coventry
Eus	Euston
Pad	Paddington
Ple	Poole
Pts	Portsmouth
Wey	Weymouth

	AS
BSt	Blake St
Foa	Four Oaks
Lch	Litchfield
Wal	Walsall

	DY
Bdf	Bradford
Cle	Cleethorpes
Hul	Hull
Lds	Leeds
New	Newcastle
Yrk	York

	DY
Cam	Cambridge
Dby	Derby
Lec	Leicester
Lcn	Lincoln
Nor	Norwich
Not	Nottingham
Pet	Peterborough
Yar	Yarmouth

	GL
Brg	Bromsgrove
Cdf	Cardiff
Lgb	Longbridge
Nqy	Newquay
Pgn	Paington
Plm	Plymough
Pnz	Penzance
Red	Redditch
Tby	Tenby
Wst	Weston-s-Mare

Trains are referred to by their four digit reporting codes, the first digit, if a 1, denoting a main line express and if a 2, secondary stopping service. Special care has to be taken with two services from the North West which, with no locomotive change, take the DY exit and the Camp Hill line to the South West rather than the more conventional GL route. These are 1V83 and 1V87. details of motive power are given as you issue movement directives with locomotive changes and associated light engine movements occuring behind the scenes. DMUs are given TOPS style identifications in the simulation even though these were not carried by most units; an additional prefix of a plus sign denotes units coupled together.

The simulation runs from 10:00 hrs to 14:00 hrs but until you gain experience you may find this hard going so there is a special "quit" option where, after more than an hours operation, you can terminate the simulation and obtain a rating of your performance. Press and hold Q for this facility.

TRAFFIC MOVEMENTS

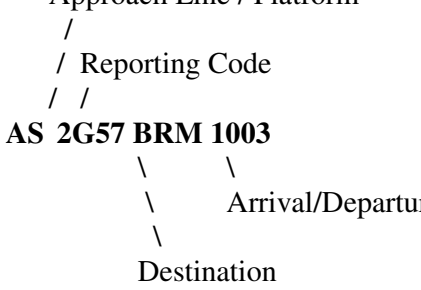
For each input up to 15 minutes notification is given of the next arrival. As each working nears Birmingham N.S. you will be informed, you then have three minutes to set a route before the train is checked at the approach, there is then a further two minutes to set the route before the train is held at the approach signals, (penalties will not be incured if checked). The procedure for setting a route is to press the SPACE BAR (after ACCEPT), and then in response to prompts enter the appropriate two or three digit code of the desired input and exit points using the ENTER/RETURN key (pressing ENTER/RETURN alone after either prompt restarts the simulation without penalty and may thus be used to give thinking time or to take a break from play). If a route is correctly set for this working and does not conflict with previously sey up movements, the train will be signalled in and in due course will traverse the route.

Acceptable codes are: P1A, P1B, P2, P3A, P3B, P4A, P4B, P5, P6, P7, P8, P9, P10, P11, P12, WV, GL, AS, CV, DY.

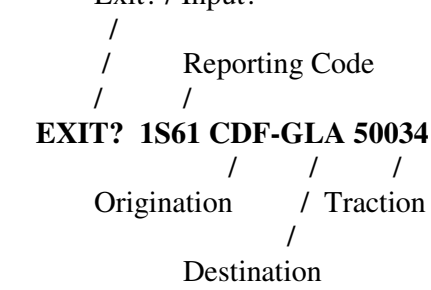
SPECTRUM SCREEN

The Spectrum screen shows the track and platforms. When you set a route, the track involved will turn magenta and as the screen is updated each minute the amount of track cleared by the moving train will turn back to yellow, allowing, if required, another route to be set.

APPROACH LINE / PLATFORM DATA



COMMAND LINE DATA



OTHER ARRIVAL CODING

Sig	Train Signalled into Station
Run	Running into Station
App	Approaching Station Area
Hld	Held at Approach Signals
Chk	Checked on Approach

OTHER PLATFORM CODING

Arr	Arrived in Platform
Dep	Departing Station
1015	Departue Time
Rdy	Ready to Depart
Loco Chng	Changing Locomotive
Run Round	Loco Running Round